

WHAT WE CLAIM IS:

- 1 1. A tissue adhesive on the basis of human or animal pro-
2 teins and containing fibrinogen and factor XIII, which
3 tissue adhesive is characterized in that
4 a) it contains at least 33 % by weight of fibrino-
5 gen,
6 b) the ratio of factor XIII to fibrinogen, ex-
7 pressed in units of factor XIII per gram of fibrino-
8 gen, amounts to at least 80,
9 c) fibrinogen and albumin are contained in the
10 total protein at a ratio of 33 to 90 : 5 to 40,
11 d) it contains plasminogen-activator-inhibitor or
12 plasmin inhibitor in an amount of 250 to 25,000 KIU
13 per g of fibrinogen, and
14 e) it is lyophilized.
- 1 2. A tissue adhesive as set forth in claim 1, wherein the
2 plasminogen-activator-inhibitor or plasmin-inhibitor
3 is aprotinin.

1 3. A tissue adhesive as set forth in claim 1, further
2 containing glycine.

1 4. A tissue adhesive as set forth in claim 1, further
2 containing glucose.

1 5. A tissue adhesive as set forth in claim 1, further
2 containing sucrose.

1 6. A tissue adhesive as set forth in claim 1, which con-
2 tains 0.2 to 200 IU of heparin per g of fibrinogen.

1 7. A tissue adhesive as set forth in claim 1 being cap-
2 able, after dissolution of the lyophilized preparation,
3 of complete cross-linking of the fibrin- α -chains after

4 3 to 5 minutes of incubation, and of at least 35 %
5 cross-linking of the fibrin-~~K~~-chains after 2 hours of
6 incubation, determined according to the SDS-polyacryl-
7 amide-gel-electrophoresis method.

1 8. A tissue adhesive as set forth in claim 1, wherein the
2 ratio of fibrinogen to albumin to cold-insoluble glo-
3 bulin in the total protein is 33 to 90 : 5 to 40 :
4 : 0.2 to 15.

1 9. A method of producing a tissue adhesive as set forth in
2 claim 1 from plasma cryoprecipitate, which method com-
3 prises
4 removing from the cryoprecipitate plasma-protein
5 that is soluble in the cold, by treating the cryopre-
6 cipitate with a buffer solution containing sodium ci-
7 trate, sodium chloride, glycine, glucose, a plasmino-
8 gen-activator-inhibitor or plasmin-inhibitor, and
9 heparin,
10 dissolving the purified precipitate,
11 adding human albumin, and

12 lyophilizing the resulting solution.

1 10. A method as set forth in claim 9, wherein the cryo-
2 precipitate is treated once with said buffer solution.

1 11. A method as set forth in claim 9, wherein the cryo-
2 precipitate is treated several times with said buffer
3 solution.

1 12. A method of using the tissue adhesive set forth in
2 claim 1 for seamlessly connecting human or animal
3 tissue or organ parts, for sealing wounds, stopping
4 bleedings and stimulating wound healing.

1 13. A method as set forth in claim 12, wherein the tissue

2 adhesive and a mixture of thrombin and calcium chloride
3 are applied onto the tissue.

1 14. A method as set forth in claim 12, wherein, prior to
2 applying the tissue adhesive onto the tissue to be con-
3 nected, a mixture of thrombin and calcium chloride
4 is added to the adhesive.

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